Serial No.: 10/567,717   PU030177

Remarks/Arguments

The Office Action mailed on September 20, 2007 has been reviewed and carefully considered.

Claims 1, 9, 14 and 16 have been amended. Claim 13 has been canceled without prejudice. Claims 1-12 and 14-21 are now pending in this application. No new matter has been introduced by the amendments.

Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested. It should be noted that the applicants are not conceding in this application that the amended claims in their prior form are not patentable over the art cited by the Examiner, as the present claim amendments have been made only to facilitate expeditious prosecution of the application. The applicants respectfully reserve the right to pursue these and other claims in one or more continuation and/or divisional patent applications.

Rejections under 35 U.S.C. §102(e)

Claims 1-4, 6-7, 9-12 and 15-21 currently stand rejected under 35 U.S.C. §102(e) in view of United States Patent Application Publication No. 2004/0264395 (hereinafter 'Hsu').

Prior to addressing the outstanding rejection, the Applicant will briefly summarize aspects of the present principles to emphasize the differences between the claimed principles and the cited reference. An aspect of the present principles includes a method and apparatus for detecting the presence of a wireless local area network (WLAN) by identifying energy fluctuations associated with WLAN activity (see, e.g., Specification, p. 8, lines 12-23; p. 9, line 20 to p. 10, line 20; FIGS. 7-8). For example, energy fluctuations may correspond to periodic beacons transmitted at a programmable rate by the WLAN and may be identified to distinguish the WLAN from other radio frequency noise (see, e.g., Specification, p. 8, lines 18-23; p. 9, line 20 to p. 10, line 2; FIGS. 7-8).

One particular advantage of implementations of the present principles is that they enhance power conservation in a wireless device while it scans for the presence of a wireless LAN. An aspect of the present principles permits identification of energy fluctuations emitted

-6-

by a wireless LAN in a wireless device while a WLAN baseband circuit of the device is deactivated. A WLAN baseband circuit, as referenced herein, processes radio frequency (RF) signals employed by a WLAN to extract data (see, e.g., Specification, element 208, FIG. 3; p. 6, lines 12-16). Examples of portions of a WLAN baseband circuit include those configured to provide automatic frequency control utilized for RF signal synchronization and carrier recovery (see, e.g., Specification, p. 10, lines 11-18). In accordance with an aspect of the present principles, energy fluctuations of WLAN RF signals are identified without processing the signals for data extraction (see, e.g., Specification, p. 10, lines 8-20). Thus, the present principles permit the detection of a WLAN without activating a WLAN baseband circuit of a wireless device to process data, thereby reducing energy consumption while the device scans for the presence of a wireless LAN (see, e.g., Specification, p. 10, lines 18-20; p. 12, lines 8-10).

Independent claims 1 and 16 of the application recite, inter alia: "detecting the presence of said wireless local area network by employing said wireless local area network scanner to identify energy fluctuations without a wireless local area network baseband circuit being activated to process data."

Hsu does not disclose or remotely render obvious features of claims 1 and 16. Although Hsu does disclose a wireless device employing a tuner to scan for a WLAN beacon (see, e.g., Hsu, paragraphs 64, 78), Hsu nowhere discloses that portions of a WLAN baseband circuit are deactivated when the beacon is detected. Indeed, Hsu does not provide any specific details concerning how the beacon is detected. Moreover, regarding energy conservation, Hsu merely describes maximizing the amount of time a wireless device is in sleep mode (see, e.g. Hsu, paragraph 91). Hsu does not disclose or remotely indicate deactivation a WLAN baseband circuit while detecting a WLAN beacon. Accordingly, claims 1 and 16 are patentably distinguished from Hsu.

In addition, claim 9 is also patentably distinguished from Hsu. Claim 9 recites, inter alia: "detecting the presence of said wireless local area network by identifying energy fluctuations of a wireless local area network signal prior to performing carrier recovery." As stated above, an aspect of the present principles includes identifying energy fluctuations of a WLAN signal without processing the signal to extract data from it. Performing carrier recovery is one process that must be executed to extract data from a WLAN signal (see,

e.g., Specification, p. 10, lines 11-14). Thus, a system in accordance with an aspect of the present principles identifies energy fluctuations prior to performing carrier recovery (see, e.g., Specification, p. 10, lines 11-20; p. 12, lines 8-9).

As discussed above, Hsu does not disclose precisely how its system detects a WLAN beacon. Thus, Hsu fails to anticipate the feature of detecting the presence of said wireless local area network by identifying energy fluctuations of a wireless local area network signal prior to performing carrier recovery.

Accordingly, for at least the reasons stated above, claims 1, 9 and 16 are believed to be in condition for allowance. Furthermore, claims 2-4, 6, 7, 10-12, 15, and 17-21 are believed to be in condition for allowance due at least to their dependencies from claims 1, 9 and 16.

Rejections under 35 U.S.C. §103(a)

Claim 5 currently stands rejected under §103(a) in view of Hsu and United Stated States Patent Application Publication No. 2004/0264395 (hereinafter 'Rao'). Applicants respectfully request reconsideration of the Examiner's §103(a) rejection in light of the following comments.

Claim 5 is dependent from claim 1 and thus also includes, inter alia, the feature of "detecting the presence of said wireless local area network by employing said wireless local area network scanner to identify energy fluctuations without a wireless local area network baseband circuit being activated to process data." As discussed above, Hsu does not anticipate or render obvious at least this feature.

In addition, Rao does not disclose or remotely render obvious the above recited feature of claim 5. Rao describes methods and apparatus for automatically configuring a wireless network client by identifying wireless local network access points upon detecting a wireless local network message (see, e.g., Rao, paragraph 8). However, Rao merely states that WLAN access points are discovered and a broadcast message is detected by the wireless client (see, e.g., Rao, paragraphs 43 and 53). No specific details concerning how the WLAN access points are detected are provided by Rao in any way. Moreover, the reference certainly does not disclose or remotely suggest that a baseband circuit is

-8-

deactivated while identifying a WLAN broadcast message to detect the presence of a wireless network.

Accordingly, claim 5 is believed to be in condition for allowance at least because Rao and Hsu, taken singly or in combination, fail to anticipate or render obvious the feature of detecting the presence of a wireless local area network by identifying energy fluctuations without a wireless local area network baseband circuit being activated to process data.

Claims 8 and 13-14 currently stand rejected under 35 U.S.C. §103(a) in view of Hsu and United States Patent Application Publication No. 2003/0134650 (hereinafter 'Sundar'). Applicants respectfully request reconsideration of the Examiner's §103(a) rejection in light of the above amendments, and the following comments.

Claim 8 is dependent on claim 1 and includes, inter alia, the feature of "detecting the presence of said wireless local area network by employing said wireless local area network scanner to identify energy fluctuations without a wireless local area network baseband circuit being activated to process data," as described above. In addition, claim 14 is dependent on claim 9 and thereby includes, inter alia, "detecting the presence of said wireless local area network by identifying energy fluctuations of a wireless local area network signal prior to performing carrier recovery." Furthermore, it should be noted that claim 13 has been canceled without prejudice and, as a result, is not discussed below.

Sundar describes a method for interworking a mobile station between WWAN and WLAN environments. Regarding detection of the presence of a WLAN, Sundar states that its presence may be "inferred by detecting RF energy in the permitted 802.11b/a spectrum (2.4 GHz band for 802.11b/802.11g and 5 GHz band) (Sundar, paragraph 55) (emphasis added). Additionally, Sundar states that "[a]fter successful energy detection, the mobile state can detect if a valid WLAN is present" by either passive scanning, wherein the mobile station searches for a beacon frame broadcast, or active scanning, wherein the mobile station receives a probe response (Sundar, paragraphs 55-57) (emphasis added). "As part of the beacon frame or the probe response, the AP sends a SSID (1-32 octets length string) that identifies the AP 204. The mobile station 310 compares this SSID with a

-9-

Serial No.: 10/567,717   PU030177

list of SSIDs (which may include ranges) and if there is a match, infers that the WLAN 200 is a valid network for it to gain access" (Sundar, paragraph 58).

Thus, the system of Sundar performs two steps, network presence detection and network validation. First, as stated above, Sundar detects the presence of RF energy in the permitted spectrum. Sundar does not disclose <u>identifying</u> <u>energy fluctuations</u> to detect the presence of a wireless LAN. To detect the presence of a wireless LAN, Sundar merely determines whether RF energy within certain frequencies is present. In contrast, as stated above, an aspect of the present principles includes <u>identifying</u> <u>energy fluctuations</u> to distinguish WLAN activity from other radio frequency noise, such as those that may result from cellular telephones or pagers. In this way, the present principles provide a more accurate means of detecting the presence of a WLAN that is not described or rendered obvious by Sundar.

Moreover, as stated above, another aspect of the present principles includes detecting the presence of a WLAN by identifying energy fluctuations without processing WLAN signals for data extraction. This aspect permits a wireless device to identify energy fluctuations from a WLAN while a wireless local area network baseband circuit in the wireless device is deactivated, as included in claim 8. Moreover, the aspect also permits identification of energy fluctuations from a WLAN prior to performing carrier recovery, as included in claim 14, which is a process that is executed to extract data from a WLAN carrier signal. Both of these features conserve power while scanning for the presence of a WLAN and Sundar does not disclose either of them.

Although Sundar describes processing WLAN beacons, which may be a source of energy fluctuations from a WLAN, during Network validation, the beacon processing conducted by the Sundar system necessarily entails extracting data. As quoted above, the Sundar system validates the WLAN by extracting an SSID from the WLAN beacon. Thus, during the WLAN validation process, in the Sundar system, components of a baseband circuit are necessarily active and the system necessarily performs carrier recovery, as data is extracted from the WLAN beacon.

Accordingly, Sundar nowhere discloses or renders obvious the feature of detecting the presence of a WLAN by both <u>identifying</u> <u>energy fluctuations</u> and having <u>a WLAN baseband circuit deactivated</u>, as included in claim 8. Moreover, Sundar does not disclose

-10-

Serial No.: 10/567,717   PU030177

or render obvious the feature of <u>detecting the presence of a WLAN</u> by <u>identifying energy fluctuations prior to performing carrier recovery</u>. Furthermore, Hsu, taken singly or in combination with Sundar, also fails to anticipate or render obvious these features, as described above. Thus, claims 8 and 14 are believed to be in condition for allowance for at least the reasons stated.

-11-

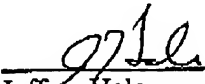Serial No.: 10/567,717   PU030177

Conclusion

In view of the foregoing, applicants respectfully requests that the rejections of the claims set forth in the Office Action of September 20, 2007 be withdrawn, that pending claims 1-12 and 14-21 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's representatives Deposit Account No. 07-832.

Respectfully submitted,

Jeffrey Hale
Registration No. 40,012

Dated: _11/12_____, 2007

Thomson Licensing Inc.
2 Independence Way, Suite 200
P.O. Box 5312
Princeton, NJ 08543-5312

-12-